

**Downriver Community Conference
Brownfield Consortium
Southgate, Michigan**

**Phase II Environmental Site Assessment
Washtenaw County Juvenile Center
and O'Brien Center
2260 and 2270 Platt Road
Ann Arbor, Michigan**

September 2010





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September 15, 2010

TTL Project No. 6358.04

Ms. Paula Boase
Downriver Community Conference Brownfield Consortium
15100 Northline Road
Southgate, Michigan 48195

**Phase II Environmental Site Assessment
Washtenaw County Juvenile Center and O'Brien Center
2260 and 2270 Platt Road
Ann Arbor, Michigan**

Dear Ms. Boase:

The Phase II Environmental Site Assessment (ESA) conducted for the Downriver Community Conference Brownfield Consortium (DCCBC) and Washtenaw County by TTL Associates, Inc. (TTL) for the above-referenced site is enclosed.

TTL appreciates the opportunity to continue to provide the DCCBC with our engineering, consulting, and testing services. Should you have any questions or require additional information, please contact us at (734) 455-8600.

Sincerely,

TTL Associates, Inc.

A handwritten signature in blue ink, appearing to read 'S. Gach', is written over the printed name of Steven J. Gach.

Steven J. Gach, P.E.
Senior Engineer

A handwritten signature in blue ink, appearing to read 'R. Clark', is written over the printed name of Robin J. Clark.

Robin J. Clark
Senior Scientist

cc: Mr. Brett Lenart, Washtenaw County

Enclosure

V:\Plymouth\DCC Brownfield Consortium\2270 Platt Ann Arbor\Phase II ESA\6358.04 DCCBC 2270 Platt Ann Arbor Phase II ESA.doc

**PHASE II ENVIRONMENTAL SITE ASSESSMENT
WASHTENAW COUNTY JUVENILE CENTER AND O'BRIEN CENTER
2260 AND 2270 PLATT ROAD
ANN ARBOR, MICHIGAN**

FOR

**DOWNRIVER COMMUNITY CONFERENCE
BROWNFIELD CONSORTIUM
15100 NORTHLINE ROAD
SOUTHGATE, MICHIGAN**

**SEPTEMBER 15, 2010
TTL PROJECT NO. 6358.04**

**TTL ASSOCIATES, INC.
44265 PLYMOUTH OAKS BOULEVARD
PLYMOUTH, MICHIGAN 48170
(734) 455-8600
FAX: (734) 455-8608**



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1.0 INTRODUCTION

This report presents the methodologies and findings of a Phase II Environmental Site Assessment (ESA) conducted by TTL Associates, Inc. (TTL) in August 2010 for the Downriver Community Conference Brownfield Consortium (DCCBC) and Washtenaw County for the property located at 2260 and 2270 Platt Road in Ann Arbor, Washtenaw County, Michigan (site). Figure 1.0 illustrates the site location. The scope of work for this Phase II ESA was based on the findings of TTL's Phase I ESA for the site, dated May 11, 2010. This Phase II ESA was conducted under TTL's contract with the DCCBC and was funded by the DCCBC's 2009 U.S. EPA Brownfield Assessment Grant.

1.1 Site Description

The site is approximately 10 acres in area and consists of a portion of one approximately 140-acre parcel. The site is occupied by one juvenile court and detention building, one office building, and asphalt and concrete paved and landscaped areas on the northern portion of the site. The remaining areas of the site are occupied by unimproved land. Figure 2.0 illustrates the current site features.

1.2 Site Background

The site was undeveloped and/or agricultural land from at least 1937 to 1954. The northeastern site building (the O'Brien Center, 2260 Platt Road) was constructed in approximately 1954. The current juvenile court and detention building (Washtenaw County Juvenile Center, 2270 Platt Road) was constructed in approximately 1969. The 2260 Platt Road building was operated as the juvenile detention center until the newer building was constructed.

The Phase I ESA identified the following recognized environmental condition (REC) in connection with the site:

- Ann Arbor Fire Department records indicate that the northeastern site building (2260 Platt Road) was heated via heating oil in 1956 through at least the early 1970s, before natural gas was used at the site. No documentation was identified during the Phase I ESA regarding whether the heating oil was stored in an aboveground storage tank (AST) or underground storage tank (UST). The possible former use of a heating oil UST at the site was identified as a REC in the Phase I ESA.

On May 14, 2010, subsequent to the completion of the Phase I ESA, CTI and Associates, Inc. (CTI) completed a magnetometer survey in the area of the suspected heating oil UST. The magnetometer survey identified the presence of a heating oil UST, reportedly 1,000 gallons in capacity, approximately 20 feet east of the boiler room for the 2260 Platt Road building. A copy of the CTI report is included as Appendix A.

1.3 Purpose

Washtenaw County intends to vacate the site in the near future. The Phase I and Phase II ESAs were conducted in association with plans for marketing and redevelopment of the site. The Phase II ESA investigation was conducted to assess whether the site has been impacted by the REC identified

during the Phase I ESA, the heating oil UST located east of the boiler room in the northeastern site building (2260 Platt Road). The results of the Phase II ESA are also being used to preliminarily assess potential due care obligations associated with future site development.

2.0 FIELD ACTIVITIES

Field activities performed at the site during the Phase II ESA included soil borings, collecting and field screening soil samples from soil borings, and collecting groundwater samples from the borings, if encountered. Field activities were completed in accordance with the Quality Assurance Project Plan (QAPP) that was prepared by TTL for investigations under the U.S. EPA Assessment Grant to the DCCBC and TTL's site-specific Sampling and Analysis Plan (SAP) for the Phase II ESA. Both the QAPP and SAP were reviewed and approved by the U.S. EPA.

2.1 Soil Boring and Associated Soil Sampling

On August 5, 2010, TTL advanced four soil borings (GP-1 through GP-4) at the site with a Geoprobe[®] hydraulic-push sampling apparatus under the supervision of a TTL environmental engineer. The four borings were advanced along each side of the approximately 1,000-gallon heating oil UST. The borings were conducted within five feet of the UST. Figure 3.0 illustrates the approximate soil boring locations.

The soil borings were each advanced to a depth at which probe refusal was encountered, ranging from approximately 7 to 10 feet below ground surface (bgs). Soil samples were collected within disposable acetate sleeves in continuous four-foot increments from each borehole so that the materials encountered could be observed, described, and sampled in a relatively undisturbed state. Sampling equipment was decontaminated prior to each sampling run, utilizing Liquinox[®] soap and de-ionized water rinses to minimize the potential for sample cross-contamination.

The site stratigraphy encountered generally consisted of six to eight inches of topsoil underlain by sand with some gravel to the boring termination depths (approximately 7 to 10 feet bgs). Probe refusal conditions were encountered at each boring location, apparently due to gravel or cobbles within the sand. Groundwater was not encountered in the soil borings. Soil boring logs for the Phase II ESA soil borings are provided in Appendix B.

Soil samples collected from each soil boring were split into two portions: one for potential laboratory analysis and one for field screening. Samples for potential laboratory analysis were placed in laboratory-cleaned, glass sample containers fitted with Teflon[®]-lined lids. In addition, soil samples collected for potential laboratory analysis for volatile organic compounds (VOCs) were field-preserved with methanol pursuant to U.S. EPA SW-846 Method 5035. U.S. EPA approved sampling procedures were followed to ensure sample integrity.

Samples for field screening were placed in dedicated, resealable plastic bags and screened on-site using a field photoionization detector (PID) to preliminarily assess the samples for the presence of total organic vapors. PID screening was conducted for each sample following the accumulation of headspace vapor from the sample in the sealed plastic bag. No elevated PID readings were encountered in any of the soil borings. No petroleum hydrocarbon odors or staining were noted in any of the soil borings. The PID readings are included on the soil boring logs in Appendix B.

One soil sample was collected from each soil boring for laboratory analysis. Soil samples were selected for laboratory analysis from the depth intervals that appeared most likely to be impacted

based on the field screening results, the site's geologic characteristics and the potential source of impact. Soil samples were collected from approximately six to nine feet bgs, the approximate depth of the UST bottom.

A duplicate soil sample was obtained from soil boring GP-3 for QA/QC purposes. Matrix spike/matrix spike duplicate (MS/MSD) soil samples were also obtained from soil boring GP-3 for laboratory QA/QC purposes. In addition to the duplicate samples, a methanol blank was submitted for laboratory analysis for QA/QC purposes. Samples were delivered under chain-of-custody protocol to the laboratory in an ice-cooled container.

2.2 Groundwater Sampling

Groundwater was not encountered in the Phase II ESA soil borings; no groundwater samples were collected.

3.0 ANALYTICAL RESULTS

RTI Laboratories, Inc. (RTI) of Livonia, Michigan performed the laboratory analyses per the requirements of the QAPP. RTI is the laboratory specified in the QAPP. The analytical parameters and methods were selected by TTL on the basis of site conditions, the identified REC, and/or Michigan Department of Natural Resources and Environment (MDNRE) guidance. Each of the soil samples was analyzed for MDNRE-recommended parameters for heating oil, including: benzene, toluene, ethylbenzene and xylenes (BTEX); trimethylbenzene isomers (TMBs); and polynuclear aromatic hydrocarbons (PNAs). Copies of the laboratory analytical report and the chain-of-custody record are included as Appendix C. Analytical methods are specified in the laboratory report.

3.1 Soil Sample Results

Table 1.0 summarizes the laboratory analytical results for the soil samples analyzed. The tables also include the most stringent potentially applicable Michigan Public Act 451 of 1994, as amended, Part 201 (Part 201) cleanup criteria for residential land use: drinking water protection, soil volatilization to indoor air inhalation, and direct contact. Regardless of the current or future intended property use, these are the criteria to determine if the site is a “facility” as defined under Part 201. The following is a summary of the soil laboratory analytical results:

- No BTEX or TMB compounds were detected in any of the soil samples.
- No PNAs were detected in any of the soil samples.

3.2 Groundwater Sample Results

No groundwater was encountered; no groundwater samples were collected or analyzed.

4.0 FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

TTL conducted a subsurface investigation at the site in August 2010 to assess for possible impacts to soil and/or groundwater at the site related to the REC identified in the Phase I ESA, the heating oil UST formerly used at the site, located east of the boiler room of the northeastern site building (2260 Platt Road). This section provides a summary of the findings, conclusions, and recommendations based on the data obtained during the Phase II ESA.

4.1 Findings

The findings of this Phase II ESA are summarized as follows:

- The site stratigraphy encountered generally consisted of six to eight inches of topsoil underlain by sand with some gravel to the boring termination depths (approximately 7 to 10 feet bgs). Probe refusal conditions were encountered at each boring location, apparently due to gravel or cobbles within the sand. Groundwater was not encountered in the soil borings.
- No elevated PID readings, petroleum hydrocarbon odors, or stained soil were encountered in any of the soil borings, which were advanced within 5 feet of each side of the UST.
- No heating oil indicator parameters (BTEX, TMBs and PNAs) were detected in any of the soil samples.

4.2 Conclusions

The Phase II ESA was designed to assess the site for possible impacts associated with an out-of-service heating oil UST located east of the northeastern site building (2260 Platt Road). The Phase II ESA investigation included soil borings within 5 feet of the four side of the UST. Phase II ESA field observations and PID screening did not identify any indications of petroleum impacts in the soil borings. Laboratory analytical results of the soil samples collected during the Phase II ESA did not identify evidence of a heating oil release.

Based on the results of this investigation, it does not appear that the out-of-service heating oil UST has significantly impacted the site.

4.3 Recommendations

It is recommended that the heating oil UST be properly emptied of residual product (if any) and removed. No further actions are recommended at this time.

TABLES

TABLE 1.0
SOIL ANALYTICAL DATA (µg/kg)
TTL Project Number 6358.04
2260 and 2270 Platt Road
Ann Arbor, Michigan

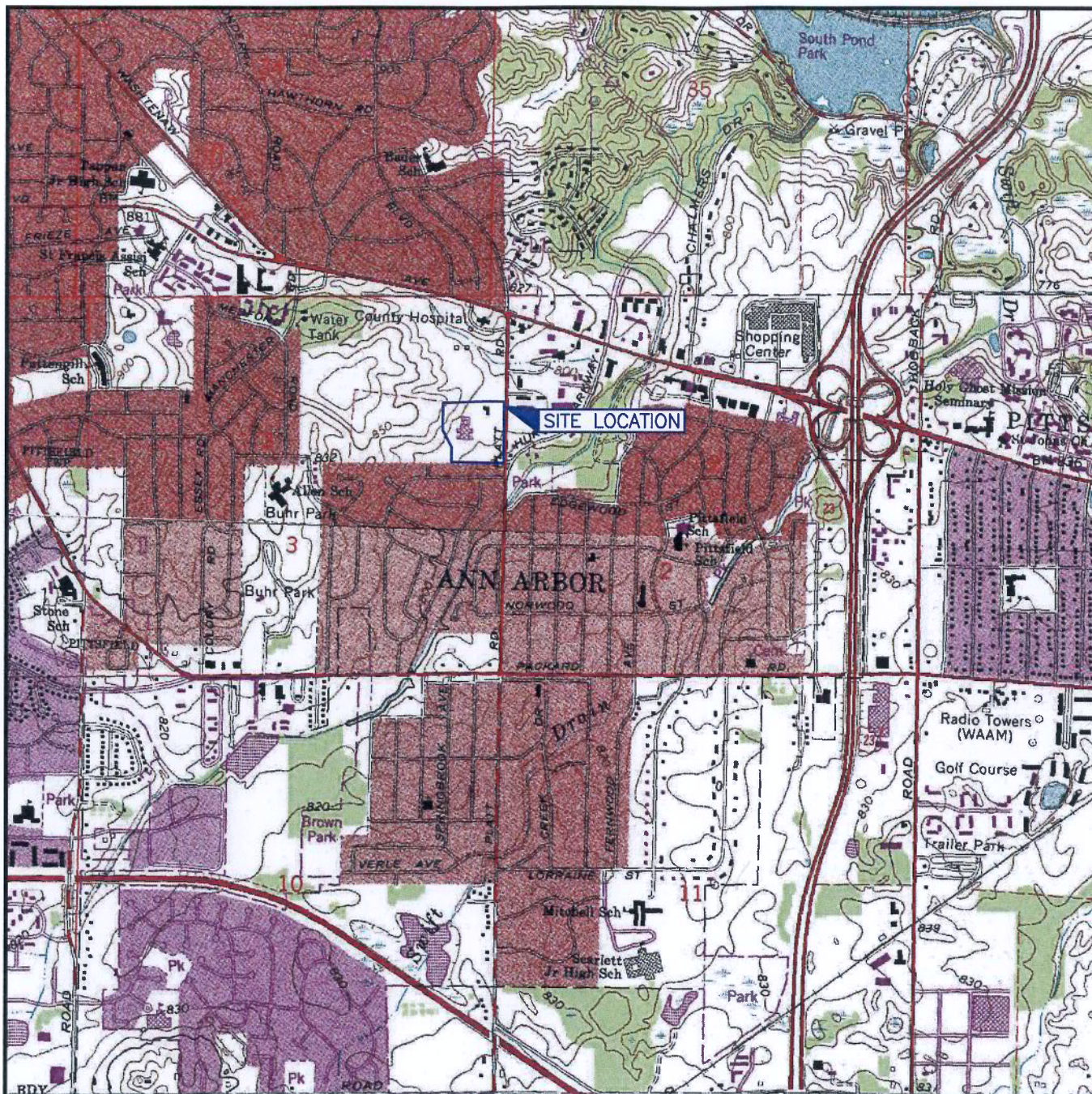
Sample Location	CAS #	GP-1	GP-2	GP-3	DUP (GP-3)	GP-4	Part 201 Residential Drinking Water Protection Criteria	Part 201 Residential Soil Volatilization to Indoor Air Inhalation Criteria	Part 201 Residential Direct Contact Criteria
Sample Depth (feet bgs)		6'-6' 10"	6'-6' 10"	7'-9'	7'-9'	6'-7'6"			
Date of Collection		08/05/10	08/05/10	08/05/10	08/05/10	08/05/10			
		Conc.	Conc.	Conc.	Conc.	Conc.			
1,2,3 - Trimethylbenzene	526738	ND	ND	ND	ND	ND	ID	ID	ID
1,2,4 - Trimethylbenzene	95636	ND	ND	ND	ND	ND	2,100	110,000	110,000
1,3,5 - Trimethylbenzene	108678	ND	ND	ND	ND	ND	1,800	94,000	94,000
Benzene	71432	ND	ND	ND	ND	ND	100	1,600	180,000
Ethylbenzene	100414	ND	ND	ND	ND	ND	1,500	87,000	140,000
Toluene	108883	ND	ND	ND	ND	ND	16,000	250,000	250,000
Xylenes (Total)	1330207	ND	ND	ND	ND	ND	5,600	150,000	150,000
PNAs	(various)	ND	ND	ND	ND	ND	(various)	(various)	(various)

ND = Not detected at the reporting limit.

ID = MDNRE has not established a criterion for this compound/pathway.

Refer to the laboratory analytical report for additional QA/QC analytical results.

FIGURES



REFERENCE

USGS 7.5 MIN TOPOGRAPHIC QUADRANGLE
ANN ARBOR, MICHIGAN
DATED 1965, PHOTOREVISED 1983
SCALE 1 : 24000



APPROXIMATE
SCALE - FEET

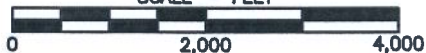


FIGURE 1.0 SITE LOCATION MAP

PHASE II ENVIRONMENTAL SITE ASSESSMENT
WASHTENAW COUNTY JUVENILE CENTER
2260 PLATT ROAD
ANN ARBOR, MI

PREPARED FOR
DOWNRIVER COMMUNITY CONFERENCE
SOUTHGATE, MI

DRAWN AJC/04-14-10

CHECKED

REVISED

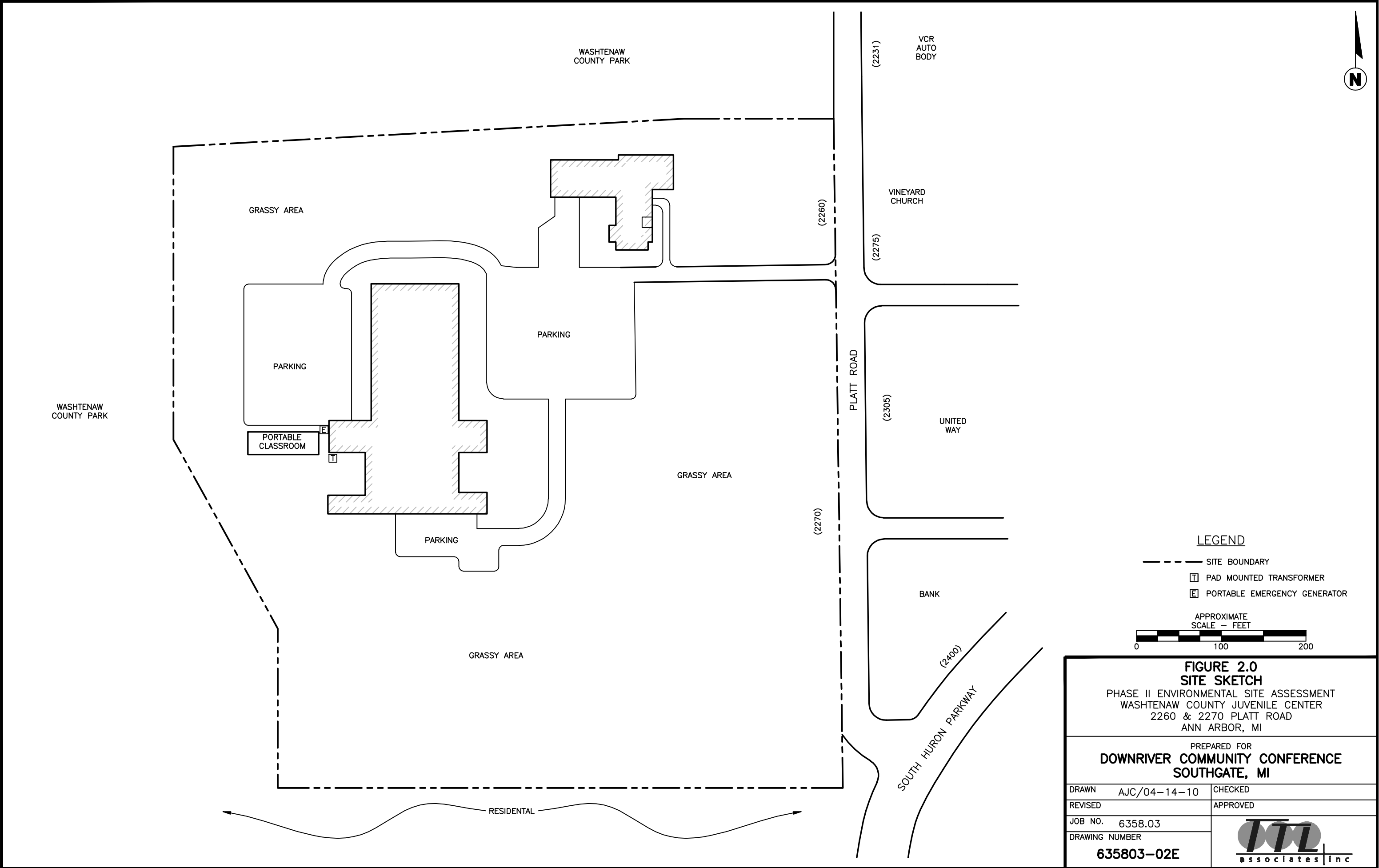
APPROVED

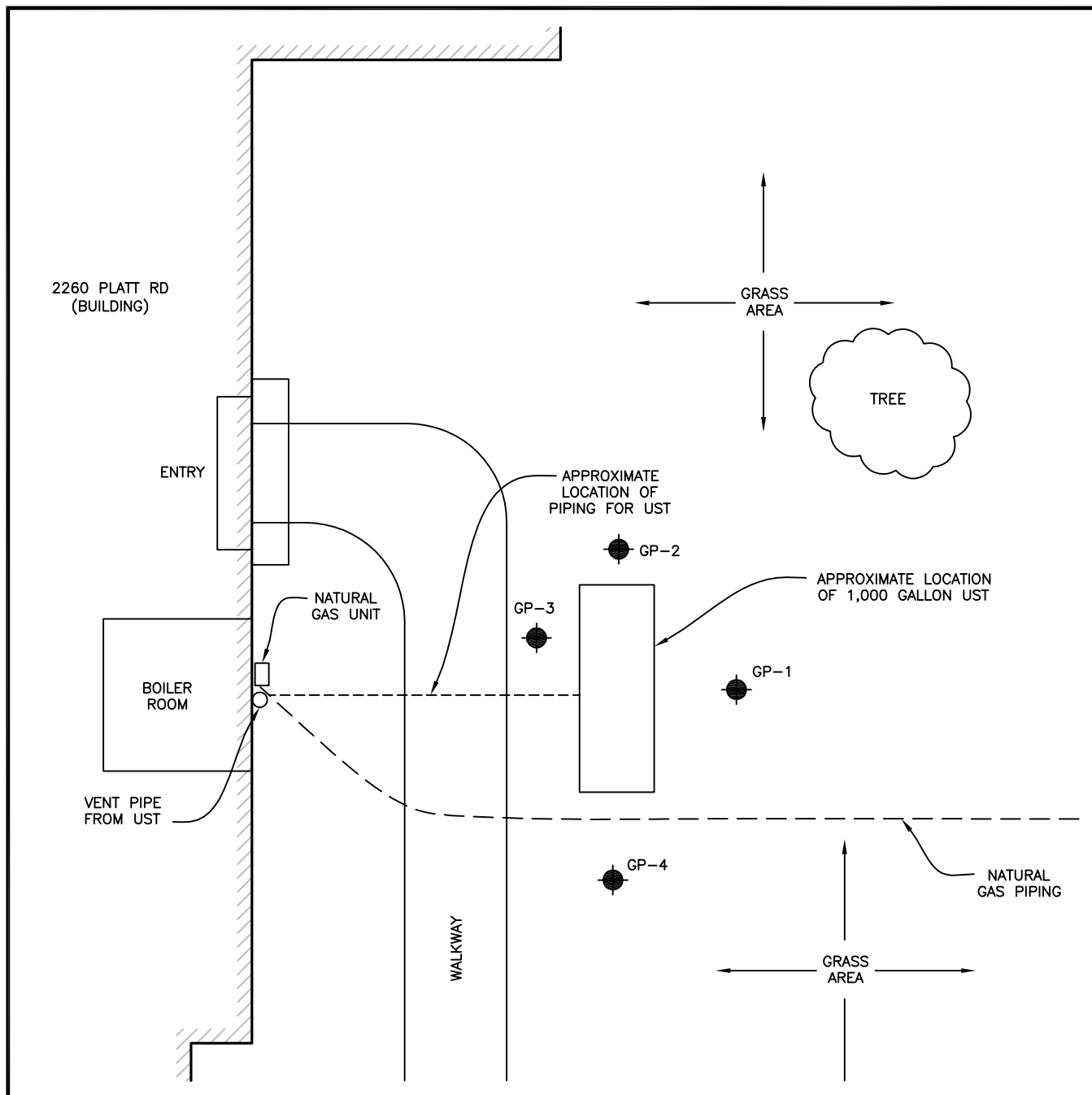
JOB NO. 6358.04

DRAWING NUMBER

635804-01E







LEGEND

- SITE BOUNDARY
- PIPING
- GP-1 ● SOIL BORING LOCATION

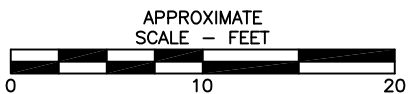


FIGURE 3.0 SOIL BORING LOCATIONS

PHASE II ENVIRONMENTAL SITE ASSESSMENT
WASHTENAW COUNTY JUVENILE CENTER
2260 PLATT ROAD
ANN ARBOR, MI

PREPARED FOR
DOWNRIVER COMMUNITY CONFERENCE
SOUTHGATE, MI

DRAWN AJC/04-14-10

CHECKED

REVISED

APPROVED

JOB NO. 6358.04

DRAWING NUMBER

635804-03E



APPENDIX A
UST LOCATE – SUMMARY REPORT



May 18, 2010

Mr. William Goebel
Washtenaw County
2155 Hogback
Ann Arbor, MI 48107

RE: UST Locate - Summary
2260 Platt Road
Ann Arbor, Michigan 48104
Project No.: 105010031

Dear Mr. Goebel:

CTI and Associates, Inc. (CTI) has completed the underground storage tank (UST) locate at 2260 Platt Road, City of Ann Arbor, Michigan. This letter is to provide a summary of the work completed for the UST locate on May 14, 2010. The scope of services was provided in general accordance with CTI Proposal 10PRO5010033, dated May 12, 2010.

On May 14, 2010, CTI met with Mr. William Goebel at the study property to locate the 1,000-gallon heating oil UST associated with the former heating system at the site building. Mr. Goebel informed CTI that the former site plans show the UST to be located adjacent to the boiler room on the east side of the site building.

During the visual evaluation of the site, CTI identified a vent pipe adjacent to the current natural gas meter and associated piping on the exterior of the building. CTI performed the UST locate using a CST Magna-Trak 100 magnetometer. Based on the location of the UST from the historic site plan, provided by Mr. Goebel, and the location of the vent pipe, CTI was able to approximate the location of the UST and associated piping using the magnetometer.

Based on readings from the magnetometer, the center of the UST appears to be approximately 20 feet east of the exterior boiler room wall and approximately 36 feet south of the perpendicular wall to the north. The dimensions of the UST identified by the magnetometer appear to be approximately 6 X 12 feet. However, the actual size of the UST is most likely closer to 4 X 11 feet. A copy of the map showing the approximate location of the UST is attached. Refer to plates I and II for site photos of the approximate UST location.

If you have any questions or comments regarding any of the work discussed above, please contact me.

Sincerely,
CTI and Associates, Inc.

A handwritten signature in blue ink that reads 'Scott Jones'.

Scott T. Jones
Staff Scientist



Civil
Geotechnical,
Environmental
and Construction
Materials Engineers
(248) 486-5100

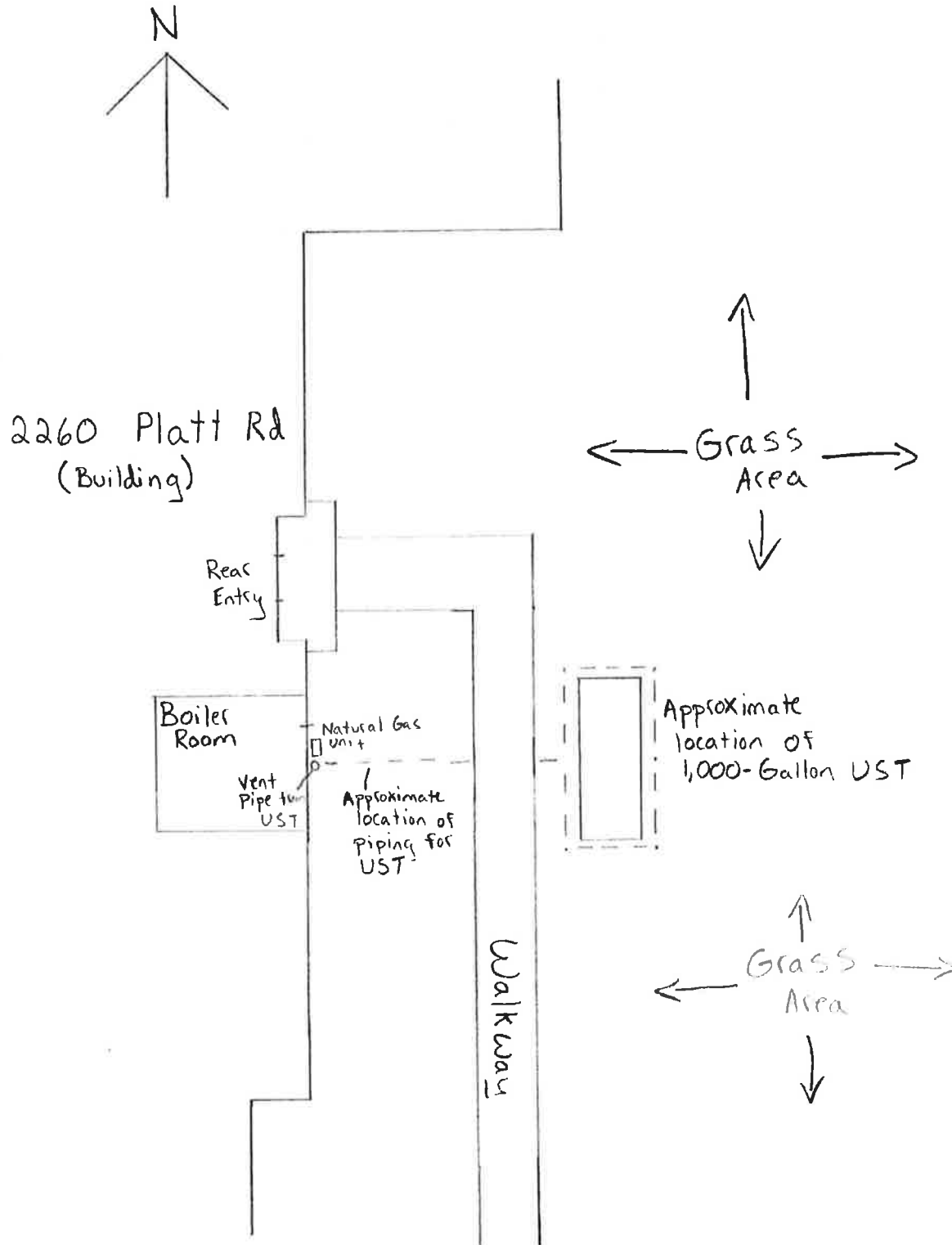
CTI and Associates, Inc.

JOB: UST LOCATE - 105010031

SHEET: 1 OF 1 SCALE: 1 in = 10 ft

CALCULATED BY: Scott Jones DATE: 5/14/2010

CHECKED BY: _____ DATE: _____



DATE:
5/14/10

PHOTOGRAPHER:
SCOTT JONES

LOCATION:
STUDY PROPERTY

DIRECTION:
WEST



A GENERAL VIEW OF THE APPROXIMATE UST LOCATION

DATE:
5/14/10

PHOTOGRAPHER:
SCOTT JONES

LOCATION:
STUDY PROPERTY

DIRECTION:
NORTH



A GENERAL VIEW OF THE APPROXIMATE UST LOCATION



SITE PHOTOGRAPHS

WASHTENAW COUNTY
2260 PLATT ROAD
ANN ARBOR, MICHIGAN

PROJ: 105010031

SCALE: NONE

DATE: 5/17/10

PLATE: I

DATE:
5/14/10

PHOTOGRAPHER:
SCOTT JONES

LOCATION:
STUDY PROPERTY

DIRECTION:
WEST



A GENERAL VIEW OF THE APPROXIMATE UST PIPING LOCATION

DATE:
5/14/10

PHOTOGRAPHER:
SCOTT JONES

LOCATION:
STUDY PROPERTY

DIRECTION:
SOUTHWEST



A GENERAL VIEW OF THE VENT PIPE



SITE PHOTOGRAPHS

**WASHTENAW COUNTY
2260 PLATT ROAD
ANN ARBOR, MICHIGAN**

PROJ: 105010031

SCALE: NONE

DATE: 5/17/10

PLATE: II

APPENDIX B
SOIL BORING LOGS



TTL Associates, Inc.
44265 Plymouth Oaks Blvd.
Plymouth, MI 48170
Telephone: 734/455-8600
Fax: 734/455-8608

BORING NUMBER GP-1

PAGE 1 OF 1

CLIENT <u>DCCBC</u>	PROJECT NAME <u>Washtenaw County Juvenile Center</u>
PROJECT NUMBER <u>6358.04</u>	PROJECT LOCATION <u>2260 Platt Road, Ann Arbor, Michigan</u>
DRILLING CONTRACTOR <u>TTL Associates</u>	RIG NO. _____ GROUND ELEVATION _____
DRILLING METHOD <u>Geoprobe</u>	GROUND WATER LEVELS:
DATE STARTED <u>8/5/10</u> COMPLETED <u>8/5/10</u>	AT TIME OF DRILLING <u>---</u>
LOGGED BY <u>MHL</u> CHECKED BY _____	AT END OF DRILLING <u>---</u>
NOTES <u>Approximately 5' east of UST</u>	AFTER DRILLING <u>---</u>

DEPTH (ft)	ELEVATION (ft)	SAMPLE NUMBER	GRAPHIC LOG	MATERIAL DESCRIPTION	RECOVERY	SPT BLOWS	PID (Log Scale) (ppm)			WELL DIAGRAM
0.0							10	100	1000	
				TOPSOIL (8 Inches)		0				
				SAND - brown, coarse grained, some gravel, trace organics, dense to hard with depth, trace clay to 3', trace silt from 3' to bottom, moist	12	0				
2.5										
						0				
5.0					18	0				
		* GP-1				0				
						0				

Geoprobe refusal at 6.8'
Bottom of hole at 6.8 feet.
*Sample submitted for laboratory analysis.

TTL Associates, Inc.
44265 Plymouth Oaks Blvd.
Plymouth, MI 48170
Telephone: 734/455-8600
Fax: 734/455-8608

BORING NUMBER GP-2

PAGE 1 OF 1

CLIENT DCCBC

PROJECT NAME Washtenaw County Juvenile Center

PROJECT NUMBER 6358.04

PROJECT LOCATION 2260 Platt Road, Ann Arbor, Michigan

DRILLING CONTRACTOR TTL Associates

RIG NO. GROUND ELEVATION

DRILLING METHOD Geoprobe

GROUND WATER LEVELS:

DATE STARTED 8/5/10 **COMPLETED** 8/5/10

AT TIME OF DRILLING

LOGGED BY MHL CHECKED BY

AT END OF DRILLING ---

NOTES Approximately 2' north of UST

AFTER DRILLING ---

DEPTH (ft)	ELEVATION (ft)	SAMPLE NUMBER	GRAPHIC LOG	MATERIAL DESCRIPTION	RECOVERY	SPT BLOWS	PID (Log Scale) (ppm)		WELL DIAGRAM
0.0							10 100 1000		
				TOPSOIL (6 Inches)		0			
				SAND - loamy dark brown, some gravel, trace clay, loose, moist		0			
2.5				- brown, some gravel, trace silt, dense to hard with depth, moist	12	0			
						0			
		* GP-2				0			
5.0						0			
					18	0			
						0			
						0			

Geoprobe refusal at 6.8'

Bottom of hole at 6.8 feet.

*Sample submitted for laboratory analysis.



TTL Associates, Inc.
44265 Plymouth Oaks Blvd.
Plymouth, MI 48170
Telephone: 734/455-8600
Fax: 734/455-8608

BORING NUMBER GP-3

PAGE 1 OF 1

CLIENT <u>DCCBC</u>	PROJECT NAME <u>Washtenaw County Juvenile Center</u>
PROJECT NUMBER <u>6358.04</u>	PROJECT LOCATION <u>2260 Platt Road, Ann Arbor, Michigan</u>
DRILLING CONTRACTOR <u>TTL Associates</u>	RIG NO. _____ GROUND ELEVATION _____
DRILLING METHOD <u>Geoprobe</u>	GROUND WATER LEVELS:
DATE STARTED <u>8/5/10</u> COMPLETED <u>8/5/10</u>	AT TIME OF DRILLING <u>---</u>
LOGGED BY <u>MHL</u> CHECKED BY _____	AT END OF DRILLING <u>---</u>
NOTES <u>Approximately 2' west of UST</u>	AFTER DRILLING <u>---</u>

DEPTH (ft)	ELEVATION (ft)	SAMPLE NUMBER	GRAPHIC LOG	MATERIAL DESCRIPTION	RECOVERY	SPT BLOWS	PID (Log Scale) (ppm)			WELL DIAGRAM
0.0						0	10	100	1000	
				TOPSOIL (6 Inches)		0				
				SAND - loamy dark brown, fine-grained, trace clay, loose, moist		0				
2.5					30	0				
				- brown, coarse-grained, some gravel, trace silt, dense to hard with depth, moist		0				
5.0						0				
					30	0				
7.5		* GP-3				0				
					12	0				
						0				

Geoprobe refusal at 9.8'

Bottom of hole at 9.8 feet.

*Sample submitted for laboratory analysis.



TTL Associates, Inc.
44265 Plymouth Oaks Blvd.
Plymouth, MI 48170
Telephone: 734/455-8600
Fax: 734/455-8608

BORING NUMBER GP-4

PAGE 1 OF 1

CLIENT DCCBC PROJECT NAME Washtenaw County Juvenile Center
PROJECT NUMBER 6358.04 PROJECT LOCATION 2260 Platt Road, Ann Arbor, Michigan
DRILLING CONTRACTOR TTL Associates RIG NO. _____ GROUND ELEVATION _____
DRILLING METHOD Geoprobe GROUND WATER LEVELS:
DATE STARTED 8/5/10 COMPLETED 8/5/10 AT TIME OF DRILLING ---
LOGGED BY MHL CHECKED BY _____ AT END OF DRILLING ---
NOTES Approximately 5' south of UST AFTER DRILLING ---

DEPTH (ft)	ELEVATION (ft)	SAMPLE NUMBER	GRAPHIC LOG	MATERIAL DESCRIPTION	RECOVERY	SPT BLOWS	PID (Log Scale) (ppm)			WELL DIAGRAM
0.0							10	100	1000	
				TOPSOIL (6 Inches)		0				
				SAND - loamy dark brown, fine to medium grained, trace organics, trace clay, loose, moist		0				
2.5					18	0				
				- brown, coarse-grained, some gravel, trace silt, dense to hard with depth, moist		0				
5.0						0				
		* GP-4			18	0				
7.5						0				

Geoprobe refusal at 7.5'

Bottom of hole at 7.5 feet.

*Sample submitted for laboratory analysis.

APPENDIX C

**LABORATORY ANALYTICAL REPORT AND
CHAIN-OF-CUSTODY RECORD**



31628 Glendale St.
Livonia, Michigan 48150
TEL: 734.422.8000
FAX: 734.422.5342
Website: www.rtilab.com

August 12, 2010

Steve Gach
TTL Associates, Inc.
44265 Plymouth Oaks Blvd
Plymouth, MI 48170-2585
TEL: (734) 455-8600
FAX: (734) 455-8608

RE: DCCBC - 6358.04

Order No.: 1008240

Dear Steve Gach:

RTI Laboratories received 6 sample(s) on 8/5/2010 for the analyses presented in the following report.

There were no problems with the analytical events associated with this report unless noted in the Case Narrative.

This report may only be reproduced in its entirety. Individual pages, reproduced without supporting documentation, do not contain related information and may be misinterpreted by other data reviewers.

Quality control data is within laboratory defined or method specified acceptance limits except if noted.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

A handwritten signature in black ink, appearing to read "Robert Lynch", with a long horizontal stroke extending to the right.

Robert Lynch
Senior Chemist and Special Projects Coordin
31628 Glendale St.
Livonia, Michigan 48150



31628 Glendale St.
Livonia, Michigan 48150
TEL: 734.422.8000
FAX: 734.422.5342
Website: www.rtilab.com

Case Narrative

WO#: 1008240
Date: 8/12/2010

CLIENT: TTL Associates, Inc.
Project: DCCBC - 6358.04

This report in its entirety consists of the documents listed below. All documents contain the RTI Work Order Number assigned to this report.

1. Paginated Report including: Case Narrative, Analytical Results and Applicable Quality Control Summary Reports.
2. A Cover Letter that immediately precedes the Paginated Report.
3. Paginated copies of the Chain of Custody Documents supplied with this sample set.

Concentrations reported with a J flag in the Qual field are values below the reporting limit (RL) but greater than the established method detection limit (MDL). There is greater uncertainty associated with these results and data should be considered as estimated. These analytes are not routinely reviewed nor narrated below as to their potential for being laboratory artifacts.

Concentrations reported with an E flag in the Qual field are values that exceed the upper quantification range. There is greater uncertainty associated with these results and data should be considered as estimated.

Any comments or problems with the analytical events associated with this report are noted below.



31628 Glendale St.
Livonia, Michigan 48150
TEL: 734.422.8000
FAX: 734.422.5342
Website: www.rtilab.com

Analytical Report

(consolidated)

WO#: 1008240

Date Reported: 8/12/2010

CLIENT: TTL Associates, Inc.

Collection Date: 8/5/2010 10:35:00 AM

Project: DCCBC - 6358.04

Lab ID: 1008240-001

Matrix: SOIL

Client Sample ID GP-1 6-6'10"

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
LIGHT DISTILLATE OILS - LDO						
SEMI-VOLATILE ORGANIC COMPOUNDS				SW8270C	SW3550C	Analyst: MT3
2-Methylnaphthalene	ND	170		µg/Kg-dry	1	8/10/2010 5:16:00 PM
Acenaphthene	ND	170		µg/Kg-dry	1	8/10/2010 5:16:00 PM
Acenaphthylene	ND	170		µg/Kg-dry	1	8/10/2010 5:16:00 PM
Anthracene	ND	170		µg/Kg-dry	1	8/10/2010 5:16:00 PM
Benz(a)anthracene	ND	170		µg/Kg-dry	1	8/10/2010 5:16:00 PM
Benzo(a)pyrene	ND	170		µg/Kg-dry	1	8/10/2010 5:16:00 PM
Benzo(b)fluoranthene	ND	170		µg/Kg-dry	1	8/10/2010 5:16:00 PM
Benzo(g,h,i)perylene	ND	170		µg/Kg-dry	1	8/10/2010 5:16:00 PM
Benzo(k)fluoranthene	ND	170		µg/Kg-dry	1	8/10/2010 5:16:00 PM
Chrysene	ND	170		µg/Kg-dry	1	8/10/2010 5:16:00 PM
Dibenz(a,h)anthracene	ND	170		µg/Kg-dry	1	8/10/2010 5:16:00 PM
Fluoranthene	ND	170		µg/Kg-dry	1	8/10/2010 5:16:00 PM
Fluorene	ND	170		µg/Kg-dry	1	8/10/2010 5:16:00 PM
Indeno(1,2,3-cd)pyrene	ND	170		µg/Kg-dry	1	8/10/2010 5:16:00 PM
Naphthalene	ND	170		µg/Kg-dry	1	8/10/2010 5:16:00 PM
Phenanthrene	ND	170		µg/Kg-dry	1	8/10/2010 5:16:00 PM
Pyrene	ND	170		µg/Kg-dry	1	8/10/2010 5:16:00 PM
Surr: 2-Fluorobiphenyl	56.4	45-105		%REC	1	8/10/2010 5:16:00 PM
Surr: Nitrobenzene-d5	52.3	35-100		%REC	1	8/10/2010 5:16:00 PM
Surr: Terphenyl-d14	74.0	30-125		%REC	1	8/10/2010 5:16:00 PM
LIGHT DISTILLATE OILS - LDO						
VOLATILE ORGANIC COMPOUNDS				SW8260B		Analyst: RH3
1,2,3-Trimethylbenzene	ND	52		µg/Kg-dry	50	8/8/2010 12:58:00 AM
1,2,4-Trimethylbenzene	ND	52		µg/Kg-dry	50	8/8/2010 12:58:00 AM
1,3,5-Trimethylbenzene	ND	52		µg/Kg-dry	50	8/8/2010 12:58:00 AM
Benzene	ND	31		µg/Kg-dry	50	8/8/2010 12:58:00 AM
Ethylbenzene	ND	52		µg/Kg-dry	50	8/8/2010 12:58:00 AM
Toluene	ND	52		µg/Kg-dry	50	8/8/2010 12:58:00 AM
Xylenes, Total	ND	160		µg/Kg-dry	50	8/8/2010 12:58:00 AM
Surr: 4-Bromofluorobenzene	98.3	90.5-116		%REC	50	8/8/2010 12:58:00 AM
Surr: Dibromofluoromethane	97.7	85-115		%REC	50	8/8/2010 12:58:00 AM
Surr: Toluene-d8	100	87.2-110		%REC	50	8/8/2010 12:58:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level
E	Value above quantitation range
J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
M	Manual Integration used to determine area response
PL	Permit Limit
S	Spike Recovery outside accepted recovery limits



RTI LABORATORIES, INC.

31628 Glendale St.
Livonia, Michigan 48150
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Analytical Report

(consolidated)

WO#: **1008240**

Date Reported: **8/12/2010**

CLIENT: TTL Associates, Inc.

Collection Date: 8/5/2010 10:35:00 AM

Project: DCCBC - 6358.04

Lab ID: 1008240-001

Matrix: SOIL

Client Sample ID GP-1 6-6'10"

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
LIGHT DISTILLATE OILS - LDO				D2216	Analyst: MP3	
PERCENT MOISTURE						
Percent Moisture	3.9	1.0		wt%	1	8/9/2010 12:00:00 PM

Qualifiers:

* / X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits



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Analytical Report

(consolidated)

WO#: 1008240

Date Reported: 8/12/2010

CLIENT: TTL Associates, Inc.

Collection Date: 8/5/2010 11:15:00 AM

Project: DCCBC - 6358.04

Lab ID: 1008240-002

Matrix: SOIL

Client Sample ID GP-2 6-6'10"

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
LIGHT DISTILLATE OILS - LDO				SW8270C	SW3550C	Analyst: MT3
SEMI-VOLATILE ORGANIC COMPOUNDS						
2-Methylnaphthalene	ND	170		µg/Kg-dry	1	8/10/2010 5:40:00 PM
Acenaphthene	ND	170		µg/Kg-dry	1	8/10/2010 5:40:00 PM
Acenaphthylene	ND	170		µg/Kg-dry	1	8/10/2010 5:40:00 PM
Anthracene	ND	170		µg/Kg-dry	1	8/10/2010 5:40:00 PM
Benz(a)anthracene	ND	170		µg/Kg-dry	1	8/10/2010 5:40:00 PM
Benzo(a)pyrene	ND	170		µg/Kg-dry	1	8/10/2010 5:40:00 PM
Benzo(b)fluoranthene	ND	170		µg/Kg-dry	1	8/10/2010 5:40:00 PM
Benzo(g,h,i)perylene	ND	170		µg/Kg-dry	1	8/10/2010 5:40:00 PM
Benzo(k)fluoranthene	ND	170		µg/Kg-dry	1	8/10/2010 5:40:00 PM
Chrysene	ND	170		µg/Kg-dry	1	8/10/2010 5:40:00 PM
Dibenz(a,h)anthracene	ND	170		µg/Kg-dry	1	8/10/2010 5:40:00 PM
Fluoranthene	ND	170		µg/Kg-dry	1	8/10/2010 5:40:00 PM
Fluorene	ND	170		µg/Kg-dry	1	8/10/2010 5:40:00 PM
Indeno(1,2,3-cd)pyrene	ND	170		µg/Kg-dry	1	8/10/2010 5:40:00 PM
Naphthalene	ND	170		µg/Kg-dry	1	8/10/2010 5:40:00 PM
Phenanthrene	ND	170		µg/Kg-dry	1	8/10/2010 5:40:00 PM
Pyrene	ND	170		µg/Kg-dry	1	8/10/2010 5:40:00 PM
Surr: 2-Fluorobiphenyl	55.6	45-105		%REC	1	8/10/2010 5:40:00 PM
Surr: Nitrobenzene-d5	53.5	35-100		%REC	1	8/10/2010 5:40:00 PM
Surr: Terphenyl-d14	71.5	30-125		%REC	1	8/10/2010 5:40:00 PM

LIGHT DISTILLATE OILS - LDO				SW8260B	Analyst: RH3
VOLATILE ORGANIC COMPOUNDS					
1,2,3-Trimethylbenzene	ND	49		µg/Kg-dry	46.1 8/8/2010 1:24:00 AM
1,2,4-Trimethylbenzene	ND	49		µg/Kg-dry	46.1 8/8/2010 1:24:00 AM
1,3,5-Trimethylbenzene	ND	49		µg/Kg-dry	46.1 8/8/2010 1:24:00 AM
Benzene	ND	29		µg/Kg-dry	46.1 8/8/2010 1:24:00 AM
Ethylbenzene	ND	49		µg/Kg-dry	46.1 8/8/2010 1:24:00 AM
Toluene	ND	49		µg/Kg-dry	46.1 8/8/2010 1:24:00 AM
Xylenes, Total	ND	150		µg/Kg-dry	46.1 8/8/2010 1:24:00 AM
Surr: 4-Bromofluorobenzene	99.7	90.5-116		%REC	46.1 8/8/2010 1:24:00 AM
Surr: Dibromofluoromethane	98.4	85-115		%REC	46.1 8/8/2010 1:24:00 AM
Surr: Toluene-d8	99.7	87.2-110		%REC	46.1 8/8/2010 1:24:00 AM

Qualifiers:	* / X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response
	ND	Not Detected at the Reporting Limit	PL	Permit Limit
	RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits



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Analytical Report

(consolidated)

WO#: **1008240**

Date Reported: **8/12/2010**

CLIENT: TTL Associates, Inc.

Collection Date: 8/5/2010 11:15:00 AM

Project: DCCBC - 6358.04

Lab ID: 1008240-002

Matrix: SOIL

Client Sample ID GP-2 6-6'10"

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
LIGHT DISTILLATE OILS - LDO				D2216	Analyst: MP3	
PERCENT MOISTURE						
Percent Moisture	6.0	1.0		wt%	1	8/9/2010 12:00:00 PM

Qualifiers:

* / X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits



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Analytical Report

(consolidated)

WO#: 1008240

Date Reported: 8/12/2010

CLIENT: TTL Associates, Inc.

Collection Date: 8/5/2010 11:35:00 AM

Project: DCCBC - 6358.04

Lab ID: 1008240-003

Matrix: SOIL

Client Sample ID GP-3 7-9'

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
LIGHT DISTILLATE OILS - LDO				SW8270C	SW3550C	Analyst: MT3
SEMI-VOLATILE ORGANIC COMPOUNDS						
2-Methylnaphthalene	ND	170		µg/Kg-dry	1	8/10/2010 6:04:00 PM
Acenaphthene	ND	170		µg/Kg-dry	1	8/10/2010 6:04:00 PM
Acenaphthylene	ND	170		µg/Kg-dry	1	8/10/2010 6:04:00 PM
Anthracene	ND	170		µg/Kg-dry	1	8/10/2010 6:04:00 PM
Benz(a)anthracene	ND	170		µg/Kg-dry	1	8/10/2010 6:04:00 PM
Benzo(a)pyrene	ND	170		µg/Kg-dry	1	8/10/2010 6:04:00 PM
Benzo(b)fluoranthene	ND	170		µg/Kg-dry	1	8/10/2010 6:04:00 PM
Benzo(g,h,i)perylene	ND	170		µg/Kg-dry	1	8/10/2010 6:04:00 PM
Benzo(k)fluoranthene	ND	170		µg/Kg-dry	1	8/10/2010 6:04:00 PM
Chrysene	ND	170		µg/Kg-dry	1	8/10/2010 6:04:00 PM
Dibenz(a,h)anthracene	ND	170		µg/Kg-dry	1	8/10/2010 6:04:00 PM
Fluoranthene	ND	170		µg/Kg-dry	1	8/10/2010 6:04:00 PM
Fluorene	ND	170		µg/Kg-dry	1	8/10/2010 6:04:00 PM
Indeno(1,2,3-cd)pyrene	ND	170		µg/Kg-dry	1	8/10/2010 6:04:00 PM
Naphthalene	ND	170		µg/Kg-dry	1	8/10/2010 6:04:00 PM
Phenanthrene	ND	170		µg/Kg-dry	1	8/10/2010 6:04:00 PM
Pyrene	ND	170		µg/Kg-dry	1	8/10/2010 6:04:00 PM
Surr: 2-Fluorobiphenyl	72.7	45-105		%REC	1	8/10/2010 6:04:00 PM
Surr: Nitrobenzene-d5	72.0	35-100		%REC	1	8/10/2010 6:04:00 PM
Surr: Terphenyl-d14	90.2	30-125		%REC	1	8/10/2010 6:04:00 PM

LIGHT DISTILLATE OILS - LDO				SW8260B		Analyst: RH3	
VOLATILE ORGANIC COMPOUNDS							
1,2,3-Trimethylbenzene	ND	54	µg/Kg-dry	50	8/7/2010 9:59:00 PM		
1,2,4-Trimethylbenzene	ND	54	µg/Kg-dry	50	8/7/2010 9:59:00 PM		
1,3,5-Trimethylbenzene	ND	54	µg/Kg-dry	50	8/7/2010 9:59:00 PM		
Benzene	ND	32	µg/Kg-dry	50	8/7/2010 9:59:00 PM		
Ethylbenzene	ND	54	µg/Kg-dry	50	8/7/2010 9:59:00 PM		
Toluene	ND	54	µg/Kg-dry	50	8/7/2010 9:59:00 PM		
Xylenes, Total	ND	160	µg/Kg-dry	50	8/7/2010 9:59:00 PM		
Surr: 4-Bromofluorobenzene	101	90.5-116	%REC	50	8/7/2010 9:59:00 PM		
Surr: Dibromofluoromethane	97.3	85-115	%REC	50	8/7/2010 9:59:00 PM		
Surr: Toluene-d8	101	87.2-110	%REC	50	8/7/2010 9:59:00 PM		

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level
E	Value above quantitation range
J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
M	Manual Integration used to determine area response
PL	Permit Limit
S	Spike Recovery outside accepted recovery limits



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Analytical Report

(consolidated)

WO#: **1008240**

Date Reported: **8/12/2010**

CLIENT: TTL Associates, Inc.

Collection Date: 8/5/2010 11:35:00 AM

Project: DCCBC - 6358.04

Lab ID: 1008240-003

Matrix: SOIL

Client Sample ID GP-3 7-9'

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
LIGHT DISTILLATE OILS - LDO				D2216	Analyst: MP3	
PERCENT MOISTURE						
Percent Moisture	6.8	1.0		wt%	1	8/9/2010 12:00:00 PM

Qualifiers:

* / X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits



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Analytical Report

(consolidated)

WO#: 1008240

Date Reported: 8/12/2010

CLIENT: TTL Associates, Inc.

Collection Date: 8/5/2010

Project: DCCBC - 6358.04

Lab ID: 1008240-004

Matrix: SOIL

Client Sample ID DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
LIGHT DISTILLATE OILS - LDO				SW8270C	SW3550C	Analyst: MT3
SEMI-VOLATILE ORGANIC COMPOUNDS						
2-Methylnaphthalene	ND	170		µg/Kg-dry	1	8/10/2010 7:16:00 PM
Acenaphthene	ND	170		µg/Kg-dry	1	8/10/2010 7:16:00 PM
Acenaphthylene	ND	170		µg/Kg-dry	1	8/10/2010 7:16:00 PM
Anthracene	ND	170		µg/Kg-dry	1	8/10/2010 7:16:00 PM
Benz(a)anthracene	ND	170		µg/Kg-dry	1	8/10/2010 7:16:00 PM
Benzo(a)pyrene	ND	170		µg/Kg-dry	1	8/10/2010 7:16:00 PM
Benzo(b)fluoranthene	ND	170		µg/Kg-dry	1	8/10/2010 7:16:00 PM
Benzo(g,h,i)perylene	ND	170		µg/Kg-dry	1	8/10/2010 7:16:00 PM
Benzo(k)fluoranthene	ND	170		µg/Kg-dry	1	8/10/2010 7:16:00 PM
Chrysene	ND	170		µg/Kg-dry	1	8/10/2010 7:16:00 PM
Dibenz(a,h)anthracene	ND	170		µg/Kg-dry	1	8/10/2010 7:16:00 PM
Fluoranthene	ND	170		µg/Kg-dry	1	8/10/2010 7:16:00 PM
Fluorene	ND	170		µg/Kg-dry	1	8/10/2010 7:16:00 PM
Indeno(1,2,3-cd)pyrene	ND	170		µg/Kg-dry	1	8/10/2010 7:16:00 PM
Naphthalene	ND	170		µg/Kg-dry	1	8/10/2010 7:16:00 PM
Phenanthrene	ND	170		µg/Kg-dry	1	8/10/2010 7:16:00 PM
Pyrene	ND	170		µg/Kg-dry	1	8/10/2010 7:16:00 PM
Surr: 2-Fluorobiphenyl	62.4	45-105		%REC	1	8/10/2010 7:16:00 PM
Surr: Nitrobenzene-d5	63.1	35-100		%REC	1	8/10/2010 7:16:00 PM
Surr: Terphenyl-d14	86.9	30-125		%REC	1	8/10/2010 7:16:00 PM

LIGHT DISTILLATE OILS - LDO				SW8260B	Analyst: RH3
VOLATILE ORGANIC COMPOUNDS					
1,2,3-Trimethylbenzene	ND	50	µg/Kg-dry	45.8	8/8/2010 1:49:00 AM
1,2,4-Trimethylbenzene	ND	50	µg/Kg-dry	45.8	8/8/2010 1:49:00 AM
1,3,5-Trimethylbenzene	ND	50	µg/Kg-dry	45.8	8/8/2010 1:49:00 AM
Benzene	ND	30	µg/Kg-dry	45.8	8/8/2010 1:49:00 AM
Ethylbenzene	ND	50	µg/Kg-dry	45.8	8/8/2010 1:49:00 AM
Toluene	ND	50	µg/Kg-dry	45.8	8/8/2010 1:49:00 AM
Xylenes, Total	ND	150	µg/Kg-dry	45.8	8/8/2010 1:49:00 AM
Surr: 4-Bromofluorobenzene	98.9	90.5-116	%REC	45.8	8/8/2010 1:49:00 AM
Surr: Dibromofluoromethane	98.7	85-115	%REC	45.8	8/8/2010 1:49:00 AM
Surr: Toluene-d8	101	87.2-110	%REC	45.8	8/8/2010 1:49:00 AM

Qualifiers:	* / X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response
	ND	Not Detected at the Reporting Limit	PL	Permit Limit
	RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits



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Analytical Report

(consolidated)

WO#: **1008240**

Date Reported: **8/12/2010**

CLIENT: TTL Associates, Inc.

Collection Date: 8/5/2010

Project: DCCBC - 6358.04

Lab ID: 1008240-004

Matrix: SOIL

Client Sample ID DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
LIGHT DISTILLATE OILS - LDO				D2216	Analyst: MP3	
PERCENT MOISTURE						
Percent Moisture	8.3	1.0		wt%	1	8/9/2010 12:00:00 PM

Qualifiers:

* / X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits



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Analytical Report

(consolidated)

WO#: 1008240

Date Reported: 8/12/2010

CLIENT: TTL Associates, Inc.

Collection Date: 8/5/2010 12:15:00 PM

Project: DCCBC - 6358.04

Lab ID: 1008240-005

Matrix: SOIL

Client Sample ID GP-4 6'-7'6"

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
LIGHT DISTILLATE OILS - LDO						
SEMI-VOLATILE ORGANIC COMPOUNDS				SW8270C	SW3550C	Analyst: MT3
2-Methylnaphthalene	ND	170		µg/Kg-dry	1	8/10/2010 7:40:00 PM
Acenaphthene	ND	170		µg/Kg-dry	1	8/10/2010 7:40:00 PM
Acenaphthylene	ND	170		µg/Kg-dry	1	8/10/2010 7:40:00 PM
Anthracene	ND	170		µg/Kg-dry	1	8/10/2010 7:40:00 PM
Benz(a)anthracene	ND	170		µg/Kg-dry	1	8/10/2010 7:40:00 PM
Benzo(a)pyrene	ND	170		µg/Kg-dry	1	8/10/2010 7:40:00 PM
Benzo(b)fluoranthene	ND	170		µg/Kg-dry	1	8/10/2010 7:40:00 PM
Benzo(g,h,i)perylene	ND	170		µg/Kg-dry	1	8/10/2010 7:40:00 PM
Benzo(k)fluoranthene	ND	170		µg/Kg-dry	1	8/10/2010 7:40:00 PM
Chrysene	ND	170		µg/Kg-dry	1	8/10/2010 7:40:00 PM
Dibenz(a,h)anthracene	ND	170		µg/Kg-dry	1	8/10/2010 7:40:00 PM
Fluoranthene	ND	170		µg/Kg-dry	1	8/10/2010 7:40:00 PM
Fluorene	ND	170		µg/Kg-dry	1	8/10/2010 7:40:00 PM
Indeno(1,2,3-cd)pyrene	ND	170		µg/Kg-dry	1	8/10/2010 7:40:00 PM
Naphthalene	ND	170		µg/Kg-dry	1	8/10/2010 7:40:00 PM
Phenanthrene	ND	170		µg/Kg-dry	1	8/10/2010 7:40:00 PM
Pyrene	ND	170		µg/Kg-dry	1	8/10/2010 7:40:00 PM
Surr: 2-Fluorobiphenyl	72.6	45-105		%REC	1	8/10/2010 7:40:00 PM
Surr: Nitrobenzene-d5	69.1	35-100		%REC	1	8/10/2010 7:40:00 PM
Surr: Terphenyl-d14	92.2	30-125		%REC	1	8/10/2010 7:40:00 PM
LIGHT DISTILLATE OILS - LDO						
VOLATILE ORGANIC COMPOUNDS				SW8260B		Analyst: RH3
1,2,3-Trimethylbenzene	ND	53		µg/Kg-dry	50	8/8/2010 2:15:00 AM
1,2,4-Trimethylbenzene	ND	53		µg/Kg-dry	50	8/8/2010 2:15:00 AM
1,3,5-Trimethylbenzene	ND	53		µg/Kg-dry	50	8/8/2010 2:15:00 AM
Benzene	ND	32		µg/Kg-dry	50	8/8/2010 2:15:00 AM
Ethylbenzene	ND	53		µg/Kg-dry	50	8/8/2010 2:15:00 AM
Toluene	ND	53		µg/Kg-dry	50	8/8/2010 2:15:00 AM
Xylenes, Total	ND	160		µg/Kg-dry	50	8/8/2010 2:15:00 AM
Surr: 4-Bromofluorobenzene	97.9	90.5-116		%REC	50	8/8/2010 2:15:00 AM
Surr: Dibromofluoromethane	99.4	85-115		%REC	50	8/8/2010 2:15:00 AM
Surr: Toluene-d8	100	87.2-110		%REC	50	8/8/2010 2:15:00 AM

Qualifiers:

* / X	Value exceeds Maximum Contaminant Level
E	Value above quantitation range
J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
M	Manual Integration used to determine area response
PL	Permit Limit
S	Spike Recovery outside accepted recovery limits



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Analytical Report

(consolidated)

WO#: **1008240**

Date Reported: **8/12/2010**

CLIENT: TTL Associates, Inc.

Collection Date: 8/5/2010 12:15:00 PM

Project: DCCBC - 6358.04

Lab ID: 1008240-005

Matrix: SOIL

Client Sample ID GP-4 6'-7'6"

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
LIGHT DISTILLATE OILS - LDO				D2216	Analyst: MP3	
PERCENT MOISTURE						
Percent Moisture	6.2	1.0		wt%	1	8/9/2010 12:00:00 PM

Qualifiers:

* / X	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response
ND	Not Detected at the Reporting Limit	PL	Permit Limit
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits



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Analytical Report

(consolidated)

WO#: 1008240

Date Reported: 8/12/2010

CLIENT: TTL Associates, Inc.

Collection Date: 8/5/2010

Project: DCCBC - 6358.04

Lab ID: 1008240-006

Matrix: METHANOL

Client Sample ID MeOH Blank

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				SW8260B	Analyst: RH3	
1,2,4-Trimethylbenzene	ND	50		µg/Kg	50	8/7/2010 9:33:00 PM
1,3,5-Trimethylbenzene	ND	50		µg/Kg	50	8/7/2010 9:33:00 PM
Benzene	ND	30		µg/Kg	50	8/7/2010 9:33:00 PM
Ethylbenzene	ND	50		µg/Kg	50	8/7/2010 9:33:00 PM
Toluene	ND	50		µg/Kg	50	8/7/2010 9:33:00 PM
Xylenes, Total	ND	150		µg/Kg	50	8/7/2010 9:33:00 PM
Surr: 4-Bromofluorobenzene	99.5	90.5-116		%REC	50	8/7/2010 9:33:00 PM
Surr: Dibromofluoromethane	97.9	85-115		%REC	50	8/7/2010 9:33:00 PM
Surr: Toluene-d8	100	87.2-110		%REC	50	8/7/2010 9:33:00 PM

Qualifiers:

* / X Value exceeds Maximum Contaminant Level
E Value above quantitation range
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
M Manual Integration used to determine area response
PL Permit Limit
S Spike Recovery outside accepted recovery limits



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DATES REPORT

WO#: 1008240

12-Aug-10

Client: TTL Associates, Inc.

Project: DCCBC - 6358.04

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1008240-001A	GP-1 6-6'10"	8/5/2010 10:35:00 AM	Soil	Volatile Organic Compounds			8/8/2010 12:58:00 AM
1008240-001B				PERCENT MOISTURE			8/9/2010 12:00:00 PM
				Semi-Volatile Organic Compounds		8/10/2010 8:11:20 AM	8/10/2010 5:16:00 PM
1008240-002A	GP-2 6-6'10"	8/5/2010 11:15:00 AM		Volatile Organic Compounds			8/8/2010 1:24:00 AM
1008240-002B				PERCENT MOISTURE			8/9/2010 12:00:00 PM
				Semi-Volatile Organic Compounds		8/10/2010 8:11:20 AM	8/10/2010 5:40:00 PM
1008240-003A	GP-3 7-9'	8/5/2010 11:35:00 AM		Volatile Organic Compounds			8/7/2010 9:59:00 PM
1008240-003B				PERCENT MOISTURE			8/9/2010 12:00:00 PM
				Semi-Volatile Organic Compounds		8/10/2010 8:11:20 AM	8/10/2010 6:04:00 PM
1008240-004A	DUP	8/5/2010		Volatile Organic Compounds			8/8/2010 1:49:00 AM
1008240-004B				PERCENT MOISTURE			8/9/2010 12:00:00 PM
				Semi-Volatile Organic Compounds		8/10/2010 8:11:20 AM	8/10/2010 7:16:00 PM
1008240-005A	GP-4 6'-7'6"	8/5/2010 12:15:00 PM		Volatile Organic Compounds			8/8/2010 2:15:00 AM
1008240-005B				PERCENT MOISTURE			8/9/2010 12:00:00 PM
				Semi-Volatile Organic Compounds		8/10/2010 8:11:20 AM	8/10/2010 7:40:00 PM
1008240-006A	MeOH Blank	8/5/2010	Methanol	Volatile Organic Compounds			8/7/2010 9:33:00 PM



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QC SUMMARY REPORT

WO#: **1008240**

12-Aug-10

Client: TTL Associates, Inc.

Project: DCCBC - 6358.04

TestCode: PMOIST

Sample ID: 1008202-001ADUP	SampType: DUP	TestCode: PMOIST	Units: wt%	Prep Date:	RunNo: 35337						
Client ID: ZZZZZZ	Batch ID: R35337	TestNo: D2216		Analysis Date: 8/9/2010	SeqNo: 648896						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	2.5	1.0						2.496	0.143	20	

Sample ID: 1008202-002ADUP	SampType: DUP	TestCode: PMOIST	Units: wt%	Prep Date:	RunNo: 35337						
Client ID: ZZZZZZ	Batch ID: R35337	TestNo: D2216		Analysis Date: 8/9/2010	SeqNo: 648898						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	4.4	1.0						3.787	14.2	20	

Qualifiers:

*X Value exceeds Maximum Contaminant Level
J Analyte detected below quantitation limits
R RPD outside accepted recovery limits

E Value above quantitation range
M Manual Integration used to determine area response
RL Reporting Detection Limit

H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
S Spike Recovery outside accepted recovery limits



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QC SUMMARY REPORT

WO#: 1008240

12-Aug-10

Client: TTL Associates, Inc.

Project: DCCBC - 6358.04

TestCode: SW_8260S

Sample ID: 10ug/kg LCS 10uL	SampType: lcs	TestCode: sw_8260s		Units: µg/Kg	Prep Date:			RunNo: 35345			
Client ID: LCSS	Batch ID: R35345	TestNo: SW8260B		Analysis Date: 8/7/2010			SeqNo: 649164				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,3-Trimethylbenzene	540	50	500.0	0	107	74	126				
1,2,4-Trimethylbenzene	560	50	500.0	0	112	79.2	125				
1,3,5-Trimethylbenzene	540	50	500.0	0	108	80.5	127				
Benzene	510	30	500.0	0	101	75	125				
Ethylbenzene	540	50	500.0	0	107	80.2	125				
Toluene	520	50	500.0	0	105	76.3	125				
Xylenes, Total	1,600	150	1,500	0	107	80	124				
Surr: 4-Bromofluorobenzene	2,500		2,500		101	90.5	116				
Surr: Dibromofluoromethane	2,500		2,500		98.7	85	115				
Surr: Toluene-d8	2,500		2,500		99.1	87.2	110				

Sample ID: Blank 1mLMeOH/50	SampType: mblik	TestCode: sw_8260s	Units: µg/Kg	Prep Date:	RunNo: 35345						
Client ID: PBS	Batch ID: R35345	TestNo: SW8260B	Analysis Date: 8/7/2010	SeqNo: 649165							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,3-Trimethylbenzene	ND	50									
1,2,4-Trimethylbenzene	ND	50									
1,3,5-Trimethylbenzene	ND	50									
Benzene	ND	30									
Ethylbenzene	ND	50									
Toluene	ND	50									
Xylenes, Total	ND	150									
Surr: 4-Bromofluorobenzene	2,500		2,500		100	90.5	116				
Surr: Dibromofluoromethane	2,400		2,500		97.6	85	115				
Surr: Toluene-d8	2,500		2,500		101	87.2	110				

Qualifiers:	*/X Value exceeds Maximum Contaminant Level	E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	M Manual Integration used to determine area response	ND Not Detected at the Reporting Limit	
R RPD outside accepted recovery limits	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits	



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QC SUMMARY REPORT

WO#: 1008240

12-Aug-10

Client: TTL Associates, Inc.

Project: DCCBC - 6358.04

TestCode: SW_8260S

Sample ID: 1008240-003ams	SampType: ms	TestCode: sw_8260s	Units: µg/Kg-dry	Prep Date:	RunNo: 35345						
Client ID: GP-3 7-9'	Batch ID: R35345	TestNo: SW8260B	Analysis Date: 8/7/2010	SeqNo: 649170							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,3-Trimethylbenzene	550	54	536.3	0	103	74	126				
1,2,4-Trimethylbenzene	570	54	536.3	0	106	79.2	125				
1,3,5-Trimethylbenzene	560	54	536.3	0	104	80.5	127				
Benzene	540	32	536.3	0	101	75	125				
Ethylbenzene	570	54	536.3	0	106	80.2	125				
Toluene	570	54	536.3	0	106	76.3	125				
Xylenes, Total	1,700	160	1,609	0	104	80	124				
Surr: 4-Bromofluorobenzene	2,700		2,682		99.7	90.5	116				
Surr: Dibromofluoromethane	2,600		2,682		96.7	85	115				
Surr: Toluene-d8	2,700		2,682		100	87.2	110				

Sample ID: 1008240-003amsd	SampType: msd	TestCode: sw_8260s	Units: µg/Kg-dry	Prep Date:	RunNo: 35345						
Client ID: GP-3 7-9'	Batch ID: R35345	TestNo: SW8260B	Analysis Date: 8/7/2010	SeqNo: 649171							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,3-Trimethylbenzene	560	54	536.3	0	104	74	126	554.0	0.963	25	
1,2,4-Trimethylbenzene	560	54	536.3	0	105	79.2	125	568.5	1.04	25	
1,3,5-Trimethylbenzene	550	54	536.3	0	102	80.5	127	559.4	1.94	25	
Benzene	530	32	536.3	0	99.2	75	125	542.2	1.90	25	
Ethylbenzene	560	54	536.3	0	104	80.2	125	569.0	1.90	25	
Toluene	560	54	536.3	0	105	76.3	125	566.4	1.05	25	
Xylenes, Total	1,600	160	1,609	0	102	80	124	1,667	1.43	25	
Surr: 4-Bromofluorobenzene	2,700		2,682		101	90.5	116		0	25	
Surr: Dibromofluoromethane	2,600		2,682		98.6	85	115		0	25	
Surr: Toluene-d8	2,700		2,682		101	87.2	110		0	25	

Qualifiers:	*/X	Value exceeds Maximum Contaminant Level	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	M	Manual Integration used to determine area response	ND	Not Detected at the Reporting Limit
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits



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QC SUMMARY REPORT

WO#: 1008240

12-Aug-10

Client: TTL Associates, Inc.

Project: DCCBC - 6358.04

TestCode: SW_8270S

Sample ID: MB-18921	SampType: MBLK	TestCode: SW_8270S	Units: µg/Kg	Prep Date: 8/10/2010	RunNo: 35393						
Client ID: PBS	Batch ID: 18921	TestNo: SW8270C	SW3550C	Analysis Date: 8/10/2010	SeqNo: 650438						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Methylnaphthalene	ND	160									
Acenaphthene	ND	160									
Acenaphthylene	ND	160									
Anthracene	ND	160									
Benz(a)anthracene	ND	160									
Benzo(a)pyrene	ND	160									
Benzo(b)fluoranthene	ND	160									
Benzo(g,h,i)perylene	ND	160									
Benzo(k)fluoranthene	ND	160									
Chrysene	ND	160									
Dibenz(a,h)anthracene	ND	160									
Fluoranthene	ND	160									
Fluorene	ND	160									
Indeno(1,2,3-cd)pyrene	ND	160									
Naphthalene	ND	160									
Phenanthrene	ND	160									
Pyrene	ND	160									
Surr: 2,4,6-Tribromophenol	820		832.2		98.5	35	125				
Surr: 2-Fluorobiphenyl	630		832.2		76.0	45	105				
Surr: 2-Fluorophenol	560		832.2		67.8	35	105				
Surr: Nitrobenzene-d5	610		832.2		73.1	35	100				
Surr: Phenol-d5	360		832.2		43.7	40	100				
Surr: Terphenyl-d14	770		832.2		92.6	30	125				

Qualifiers:

*X Value exceeds Maximum Contaminant Level
J Analyte detected below quantitation limits
R RPD outside accepted recovery limits

E Value above quantitation range
M Manual Integration used to determine area response
RL Reporting Detection Limit

H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
S Spike Recovery outside accepted recovery limits



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QC SUMMARY REPORT

WO#: 1008240

12-Aug-10

Client: TTL Associates, Inc.

Project: DCCBC - 6358.04

TestCode: SW_8270S

Sample ID: LCS-18921	SampType: LCS	TestCode: SW_8270S	Units: µg/Kg	Prep Date: 8/10/2010	RunNo: 35393						
Client ID: LCSS	Batch ID: 18921	TestNo: SW8270C	SW3550C	Analysis Date: 8/10/2010	SeqNo: 650439						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Methylnaphthalene	490	160	666.0	0	73.5	45	105				
Acenaphthene	550	160	666.0	0	82.8	45	110				
Acenaphthylene	540	160	666.0	0	81.6	45	105				
Anthracene	580	160	666.0	0	86.7	55	105				
Benz(a)anthracene	610	160	666.0	0	91.0	50	110				
Benzo(a)pyrene	600	160	666.0	0	89.4	50	110				
Benzo(b)fluoranthene	600	160	666.0	0	90.7	45	115				m
Benzo(g,h,i)perylene	690	160	666.0	0	104	40	125				
Benzo(k)fluoranthene	590	160	666.0	0	89.0	45	125				
Chrysene	610	160	666.0	0	91.6	55	110				
Dibenz(a,h)anthracene	700	160	666.0	0	105	40	125				
Fluoranthene	630	160	666.0	0	93.9	55	115				
Fluorene	600	160	666.0	0	89.6	50	110				
Indeno(1,2,3-cd)pyrene	700	160	666.0	0	105	40	120				
Naphthalene	440	160	666.0	0	66.3	40	105				
Phenanthrene	580	160	666.0	0	87.7	50	110				
Pyrene	600	160	666.0	0	89.9	45	125				
Surr: 2,4,6-Tribromophenol	1,000		832.5		121	35	125				
Surr: 2-Fluorobiphenyl	740		832.5		88.6	45	105				
Surr: 2-Fluorophenol	610		832.5		73.7	35	105				
Surr: Nitrobenzene-d5	690		832.5		83.4	35	100				
Surr: Phenol-d5	400		832.5		47.8	40	100				
Surr: Terphenyl-d14	850		832.5		102	30	125				

Qualifiers:

*X Value exceeds Maximum Contaminant Level
J Analyte detected below quantitation limits
R RPD outside accepted recovery limits

E Value above quantitation range
M Manual Integration used to determine area response
RL Reporting Detection Limit

H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
S Spike Recovery outside accepted recovery limits



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QC SUMMARY REPORT

WO#: 1008240

12-Aug-10

Client: TTL Associates, Inc.

Project: DCCBC - 6358.04

TestCode: SW_8270S

Sample ID: 1008240-003BMS	SampType: MS	TestCode: SW_8270S	Units: µg/Kg-dry	Prep Date: 8/10/2010	RunNo: 35393						
Client ID: GP-3 7-9'	Batch ID: 18921	TestNo: SW8270C	SW3550C	Analysis Date: 8/10/2010	SeqNo: 650443						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Methylnaphthalene	460	170	711.8	0	64.9	45	105				
Acenaphthene	510	170	711.8	0	71.1	45	110				
Acenaphthylene	500	170	711.8	0	69.9	45	105				
Anthracene	560	170	711.8	0	78.9	55	105				
Benz(a)anthracene	580	170	711.8	0	81.1	50	110				
Benzo(a)pyrene	590	170	711.8	0	82.9	50	110				
Benzo(b)fluoranthene	590	170	711.8	0	82.9	45	115				
Benzo(g,h,i)perylene	590	170	711.8	0	83.5	40	125				
Benzo(k)fluoranthene	610	170	711.8	0	86.2	45	125				
Chrysene	600	170	711.8	0	83.8	55	110				
Dibenz(a,h)anthracene	640	170	711.8	0	89.3	40	125				
Fluoranthene	590	170	711.8	0	82.6	55	115				
Fluorene	550	170	711.8	0	77.0	50	110				
Indeno(1,2,3-cd)pyrene	630	170	711.8	0	88.1	40	120				
Naphthalene	410	170	711.8	0	58.2	40	105				
Phenanthrene	560	170	711.8	0	78.2	50	110				
Pyrene	570	170	711.8	0	80.2	45	125				
Surr: 2,4,6-Tribromophenol	1,000		889.7		115	35	125				
Surr: 2-Fluorobiphenyl	720		889.7		81.0	45	105				
Surr: 2-Fluorophenol	630		889.7		70.9	35	105				
Surr: Nitrobenzene-d5	710		889.7		80.1	35	100				
Surr: Phenol-d5	400		889.7		45.2	40	100				
Surr: Terphenyl-d14	860		889.7		96.4	30	125				

Qualifiers:

*X Value exceeds Maximum Contaminant Level
J Analyte detected below quantitation limits
R RPD outside accepted recovery limits

E Value above quantitation range
M Manual Integration used to determine area response
RL Reporting Detection Limit

H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
S Spike Recovery outside accepted recovery limits



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QC SUMMARY REPORT

WO#: 1008240

12-Aug-10

Client: TTL Associates, Inc.

Project: DCCBC - 6358.04

TestCode: SW_8270S

Sample ID: 1008240-003BMSD	SampType: MSD	TestCode: SW_8270S	Units: µg/Kg-dry	Prep Date: 8/10/2010	RunNo: 35393						
Client ID: GP-3 7-9'	Batch ID: 18921	TestNo: SW8270C	SW3550C	Analysis Date: 8/10/2010	SeqNo: 650444						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Methylnaphthalene	460	170	714.6	0	64.4	45	105	462.0	0.297	25	
Acenaphthene	520	170	714.6	0	72.2	45	110	506.4	1.93	25	
Acenaphthylene	500	170	714.6	0	69.5	45	105	497.9	0.175	25	
Anthracene	590	170	714.6	0	81.9	55	105	561.6	4.19	25	
Benz(a)anthracene	620	170	714.6	0	86.2	50	110	577.3	6.50	25	
Benzo(a)pyrene	610	170	714.6	0	86.0	50	110	590.1	4.07	25	
Benzo(b)fluoranthene	630	170	714.6	0	87.6	45	115	590.4	5.91	25	m
Benzo(g,h,i)perylene	630	170	714.6	0	88.1	40	125	594.7	5.70	25	
Benzo(k)fluoranthene	620	170	714.6	0	87.3	45	125	613.6	1.67	25	
Chrysene	620	170	714.6	0	87.2	55	110	596.8	4.37	25	
Dibenz(a,h)anthracene	660	170	714.6	0	92.2	40	125	636.0	3.59	25	
Fluoranthene	620	170	714.6	0	87.4	55	115	587.9	6.10	25	
Fluorene	570	170	714.6	0	79.9	50	110	548.4	4.03	25	
Indeno(1,2,3-cd)pyrene	650	170	714.6	0	91.1	40	120	627.4	3.69	25	
Naphthalene	430	170	714.6	0	59.9	40	105	414.6	3.19	25	
Phenanthrene	590	170	714.6	0	83.1	50	110	556.6	6.47	25	
Pyrene	620	170	714.6	0	86.3	45	125	570.9	7.73	25	
Surr: 2,4,6-Tribromophenol	1,000		893.3		114	35	125		0	25	
Surr: 2-Fluorobiphenyl	630		893.3		70.7	45	105		0	25	
Surr: 2-Fluorophenol	570		893.3		64.0	35	105		0	25	
Surr: Nitrobenzene-d5	620		893.3		68.9	35	100		0	25	
Surr: Phenol-d5	370		893.3		41.4	40	100		0	25	
Surr: Terphenyl-d14	860		893.3		96.5	30	125		0	25	

Qualifiers:

*X Value exceeds Maximum Contaminant Level
J Analyte detected below quantitation limits
R RPD outside accepted recovery limits

E Value above quantitation range
M Manual Integration used to determine area response
RL Reporting Detection Limit

H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
S Spike Recovery outside accepted recovery limits

